

His	Cys	Ser	Trp	Val	Ser	Glu	Lys	Glu	Tyr	Ser	Glu	Ala	Ala	Asn	Ile	145	150	155	160
His	Pro	Arg	Leu	Arg	Thr	Arg	Leu	Asn	Asn	Phe	Arg	Arg	Gln	Lys	Glu	165	170	175	
Ala	Met	Lys	Ile	Glu	Ala	Glu	Arg	Ser	Gly	Glu	Asp	Ile	Val	Ala	Ile	180	185	190	
Arg	Pro	Glu	Trp	Thr	Thr	Val	Asp	Arg	Ile	Leu	Ala	Ser	Arg	Lys	Asn	195	200	205	
Leu	Val	Gly	Asp	Arg	Glu	Tyr	Tyr	Val	Lys	Trp	Asn	Glu	Leu	Thr	Tyr	210	215	220	
Glu	Glu	Cys	Thr	Trp	Glu	Asn	Glu	Ser	Asp	Ile	Thr	Val	Phe	Gln	Pro	225	230	235	240
Glu	Ile	Glu	Arg	Phe	Asn	Glu	Ile	Gln	Phe	Arg	Arg	Lys	Lys	Ser	Gly	245	250	255	
Asp	Lys	Gly	Lys	Ala	Thr	Arg	Glu	Pro	Arg	Gln	Phe	Lys	Glu	Ser	Pro	260	265	270	
Thr	Phe	Leu	Ser	Gly	Gly	Thr	Leu	His	Pro	Tyr	Gln	Leu	Glu	Gly	Leu	275	280	285	
Asn	Phe	Leu	Arg	Tyr	Ser	Trp	Phe	His	Asn	Lys	Arg	Val	Ile	Leu	Gly	290	295	300	
Asp	Glu	Met	Gly	Leu	Gly	Lys	Thr	Ile	Gln	Ser	Ile	Ala	Phe	Leu	Ala	305	310	315	320
Ser	Leu	Phe	Glu	Asp	Lys	Phe	Gly	Pro	His	Leu	Val	Val	Ala	Pro	Leu	325	330	335	
Ser	Thr	Leu	Arg	Asn	Trp	Glu	Arg	Glu	Phe	Ala	Thr	Trp	Ala	Pro	Gln	340	345	350	
Met	Asn	Val	Val	Met	Tyr	Phe	Gly	Ala	Ala	Ala	Ser	Arg	Asp	Ile	Ile	355	360	365	
Arg	Lys	Tyr	Glu	Phe	Tyr	Tyr	Pro	Lys	Glu	Lys	Leu	Lys	Lys	Leu	Lys	370	375	380	
Lys	Lys	Lys	Ser	Ser	Pro	Ser	Asn	Glu	Asp	Lys	Lys	Gln	Ser	Arg	Ile	385	390	395	400
Arg	Phe	Asp	Val	Leu	Thr	Ser	Tyr	Glu	Met	Ile	Asn	Met	Asp	Ser		405	410	415	
Ser	Ile	Leu	Lys	Asn	Ile	Glu	Trp	Glu	Cys	Leu	Val	Val	Asp	Glu	Gly	420	425	430	
His	Arg	Leu	Lys	Asn	Lys	Asp	Ser	Lys	Leu	Phe	Gly	Gln	Leu	Lys	Asp	435	440	445	
Tyr	Asn	Thr	Lys	His	Arg	Val	Leu	Leu	Thr	Gly	Thr	Pro	Val	Gln	Asn	450	455	460	
Asn	Leu	Asp	Glu	Leu	Phe	Met	Leu	Met	His	Phe	Leu	Glu	Gly	Glu	Ser	465	470	475	480
Phe	Gly	Ser	Ile	Thr	Asp	Leu	Gln	Glu	Glu	Phe	Lys	Asp	Ile	Asn	Gln	485	490	495	
Asp	Lys	Gln	Ile	Glu	Lys	Leu	His	Gly	Met	Leu	Lys	Pro	His	Leu	Leu	500	505	510	
Arg	Arg	Phe	Lys	Lys	Asp	Val	Met	Lys	Glu	Leu	Pro	Pro	Lys	Lys	Glu	515	520	525	
Leu	Ile	Leu	Arg	Val	Glu	Leu	Thr	Arg	Lys	Gln	Lys	Glu	Tyr	Tyr	Lys	530	535	540	
Ala	Ile	Leu	Thr	Lys	Asn	Tyr	Glu	Val	Leu	Ala	Arg	Arg	Asn	Gly	Gly	545	550	555	560
His	Thr	Ser	Leu	Ile	Asn	Val	Val	Met	Glu	Leu	Arg	Lys	Leu	Cys	Cys	565	570	575	
His	Gly	Phe	Met	Ile	Asp	Glu	Pro	Asp	Leu	Glu	Pro	Ala	Asn	Pro	Glu	580	585	590	

Glu	Gly	Leu	Arg	Arg	Leu	Leu	Asp	Ser	Ser	Gly	Lys	Met	Gln	Leu	Leu		
		595					600					605					
Asp	Lys	Met	Met	Val	Lys	Leu	Lys	Glu	Gln	Gly	His	Arg	Val	Leu	Ile		
	610					615					620						
Tyr	Ser	Gln	Phe	Gln	His	Met	Leu	Asp	Leu	Leu	Glu	Asp	Tyr	Leu	Ser		
625					630					635					640		
Tyr	Arg	Lys	Trp	Thr	Tyr	Glu	Arg	Ile	Asp	Gly	Lys	Ile	Ser	Gly	Ala		
				645					650					655			
Asp	Arg	Gln	Ile	Arg	Ile	Asp	Arg	Phe	Asn	Ala	Lys	Asn	Ser	Thr	Arg		
			660					665					670				
Phe	Cys	Phe	Leu	Leu	Ser	Thr	Arg	Ala	Gly	Gly	Leu	Gly	Ile	Asn	Leu		
		675					680					685					
Ala	Thr	Ala	Asp	Thr	Val	Ile	Ile	Tyr	Asp	Ser	Asp	Trp	Asn	Pro	His		
	690					695					700						
Ala	Asp	Leu	Gln	Ala	Met	Ala	Arg	Ala	His	Arg	Leu	Gly	Gln	Thr	Ser		
705					710					715					720		
Lys	Val	Met	Ile	Tyr	Arg	Leu	Val	Ser	Arg	Gly	Thr	Ile	Glu	Glu	Arg		
				725					730					735			
Met	Met	Gln	Leu	Thr	Lys	Lys	Lys	Ile	Leu	Leu	Glu	His	Leu	Val	Val		
			740					745					750				
Gly	Arg	Leu	Thr	Lys	Ala	Asn	Asn	Val	Asn	Gln	Glu	Glu	Leu	Asp	Asp		
		755					760					765					
Ile	Ile	Arg	Tyr	Gly	Ser	Lys	Glu	Leu	Phe	Glu	Asp	Glu	Asn	Asp	Glu		
	770					775					780						
Ser	Arg	Gln	Ile	His	Tyr	Asp	Glu	Ala	Ala	Ile	Glu	Arg	Leu	Leu	Asp		
785					790					795					800		
Arg	Asp	Gln	Val	Asp	Gly	Asp	Glu	Ser	Val	Glu	Asp	Glu	Glu	Glu	Asp		
				805					810					815			
Gly	Phe	Leu	Lys	Gly	Phe	Lys	Val	Ala	Asn	Phe	Glu	Tyr	Ile	Asp	Glu		
			820					825					830				
Ala	Lys	Ala	Gln	Ala	Glu	Lys	Glu	Glu	Ala	Arg	Arg	Lys	Ala	Ala	Ala		
		835					840					845					
Glu	Ala	Glu	Asn	Ser	Glu	Arg	Asn	Tyr	Trp	Asp	Glu	Leu	Leu	Lys	Asp		
	850					855				860							
Arg	Tyr	Asp	Val	Gln	Lys	Val	Glu	Glu	His	Thr	Ala	Met	Gly	Lys	Gly		
865					870					875					880		
Lys	Arg	Ser	Arg	Lys	Gln	Met	Ala	Ala	Ala	Asp	Glu	Asp	Asp	Ile	His		
				885					890					895			
Asp	Leu	Ser	Ser	Glu	Asp	Glu	Asp	Tyr	Ser	Leu	Glu	Asp	Asp	Ile	Ser		
			900					905					910				
Asp	Asn	Asp	Thr	Ser	Leu	Gln	Gly	Asn	Ile	Ser	Gly	Lys	Arg	Gly	Gln		
		915					920					925					
Tyr	Ser	Lys	Arg	Lys	Ser	Arg	Asn	Val	Asp	Ser	Ile	Pro	Leu	Met	Glu		
	930					935					940						
Gly	Glu	Gly	Arg	Thr	Leu	Arg	Val	Leu	Gly	Phe	Asn	His	Ala	Gln	Arg		
945					950					955					960		
Ala	Met	Phe	Leu	Gln	Thr	Leu	Asn	Arg	Phe	Gly	Phe	Gln	Asn	Tyr	Asp		
				965					970					975			
Trp	Lys	Glu	Tyr	Leu	Pro	Arg	Leu	Lys	Gly	Lys	Ser	Val	Glu	Glu	Ile		
			980					985					990				
Gln	Arg	Tyr	Ala	Glu	Leu	Val	Met	Ala	His	Leu	Val	Glu	Glu	Ile	Asn		
		995					1000					1005					
Asp	Ser	Asp	Tyr	Phe	Ser	Asp	Gly	Val	Pro	Lys	Glu	Met	Met	Arg	Val		
	1010					1015					1020						
Asp	Asp	Val	Leu	Val	Arg	Ile	Ala	Asn	Ile	Ser	Leu	Ile	Glu	Glu	Lys		
1025					1030					1035					1040		

Met	Ala	Ala	Thr	Gly	Pro	Gly	Lys	Ile	Thr	Asn	Ile	Phe	Pro	Asn	Tyr		
				1045						1050					1055		
Leu	Leu	Tyr	Glu	Phe	Gln	Gly	Leu	Ser	Gly	Gly	Arg	Ile	Trp	Lys	Ala		
			1060					1065					1070				
Glu	His	Asp	Leu	Leu	Leu	Leu	Arg	Gly	Ile	Leu	Lys	His	Gly	Tyr	Ala		
		1075					1080					1085					
Arg	Trp	Gln	Tyr	Ile	Ser	Asp	Asp	Arg	Glu	Asn	Gly	Leu	Phe	Glu	Ala		
	1090					1095					1100						
Ala	Arg	Arg	Glu	Leu	His	Leu	Pro	Ser	Val	Asn	Glu	Ile	Ile	Gly	Ala		
1105					1110					1115					1120		
Gln	Leu	Asn	Glu	Ala	Asn	Gly	Asn	Leu	Glu	Gly	Ala	Gln	Glu	Gly	Gln		
			1125					1130						1135			
Ala	Asn	Thr	Thr	Ser	Met	Ser	His	Tyr	Lys	Glu	Ile	Gln	Arg	Lys	Ile		
		1140						1145					1150				
Val	Glu	Phe	Leu	Arg	Lys	Arg	Tyr	His	Leu	Met	Glu	Arg	Ala	Leu	Asn		
	1155					1160						1165					
Leu	Glu	Tyr	Ala	Val	Ile	Lys	Lys	Lys	Ile	Pro	Val	Pro	Asp	Asp	Ile		
	1170					1175						1180					
Thr	Glu	Gln	Gly	Val	Pro	Ala	Gly	His	Ala	Pro	Leu	Ile	Pro	Asp	Ile		
1185					1190					1195					1200		
Ser	Glu	Leu	Leu	Arg	Glu	Leu	Pro	Asn	Leu	Glu	Pro	Ile	Ser	Thr	Asn		
			1205					1210									
Glu	Leu	Ile	Ser	Glu	Gly	Thr	Ala	Gly	Gln	Leu	Gln	Val	Pro	His	Leu		
		1220						1225					1230				
Tyr	Asn	Lys	Met	Cys	Gly	Val	Leu	Glu	Glu	Ser	Gly	Ala	Tyr	Ala	Leu		
	1235					1240						1245					
Ser	Ser	Phe	Phe	Gly	Asp	Lys	Ser	Ala	Ser	Ser	Thr	Leu	Ala	Asn	Ser		
	1250				1255						1260						
Leu	Arg	Gln	Phe	Glu	Thr	Val	Cys	Glu	Asn	Val	Val	Glu	Ala	Leu	Arg		
1265				1270					1275					1280			
Pro	His	Gln	Asn	Gly	Thr	Ala	Ser	Ala	Ile	Lys	Glu	Glu	Leu	Val	Asp		
		1285						1290						1295			
Ala	Ala	Thr	Lys	Ala	Ala	Ala	Ala	Ala	Ala	Pro	Gln	Gln	Asp	Ser	Gly		
		1300						1305					1310				
His	Asp	Ala	Pro	His	Gly	Gln	Ser	Ser	Thr	Ala	Lys	Ala	Asp	Met	Glu		
	1315					1320						1325					
Ile	Asp	Gly	Phe	Val	Gly	Ser	Arg	Val	Ala	Arg	Lys	Gly	Ile	Pro	Ser		
	1330				1335						1340						
Asn	His	Tyr	Val	Tyr	Cys	Gly	Gln	Asn	Val	Arg	Tyr	Ile	Leu				
1345				1350						1355							